1-26 **(Cancelled)**

27. (Currently Amended) An expandable medical device comprising:

a plurality of elongated beams joined together to form a substantially cylindrical device which is expandable from a first diameter to a second diameter, each beam defining a width in the circumferential direction of the cylindrical device; and

a plurality of ductile hinges connecting the plurality of beams together in the substantially cylindrical device, each hinge defining a width in the circumferential direction of the cylindrical device, a thickness, and a length, wherein the hinge width is smaller than the beam width such that as the device is expanded from the first diameter to the second diameter the ductile hinges experience plastic deformation while the beams are not plastically deformed, each of the ductile hinges being in the shape of a curved beam along said hinge length and having a first arcuate surface and a second arcuate surface~~, wherein the second arcuate surface is longer than the first arcuate surface, the curved beams of the hinges being positioned such that during expansion tensile strain is distributed along the second arcuate surface~~.

28. (Previously Presented) The expandable medical device according to Claim 27, wherein the hinge width is smaller than the hinge thickness.

29. (Previously Presented) The expandable medical device according to Claim 27, wherein the hinge width is no greater than 60% of the hinge thickness.

30. (Previously Presented) The expandable medical device according to Claim 27, wherein the hinge width is at least 50% smaller than the beam width.

31. (Previously Presented) The expandable medical device according to Claim 27, wherein the device is expandable by a balloon catheter pressurized by an inflation pressure of 1 to 5 atmospheres.

32. (Previously Presented) The expandable medical device according to Claim 27, wherein the hinge width is less than 2/3 the beam width.

33. (Previously Presented) The expandable medical device according to Claim 27, wherein a transition between the cross sectional area of the elongated beams orthogonal to the beam length and the cross sectional area of the ductile hinges orthogonal to the hinge length is an abrupt transition which extends less than 10 percent of a length of the elongated beams.

34. (Previously Presented) The expandable medical device according to Claim 27, wherein a ratio of a length of the ductile hinges to a length of the axial struts elongated beams is 1:6 or less.

35. (Previously Presented) The expandable medical device according to Claim 27, wherein the elongated beams include a beneficial agent for delivery to a patient.

36. (Previously Presented) The expandable medical device according to Claim 27, wherein the ductile hinges are asymmetrically configured to reach a predetermined strain level upon a first percentage expansion and to reach the predetermined strain level upon a second percentage of compression, wherein the first percentage is larger than the second percentage.

37. (Previously Presented) The expandable medical device according to Claim 27, wherein ductile hinges are configured such that during crimping of the device onto a balloon, tensile strain is distributed along the first arcuate surface of the curved prismatic beam.

38. (Currently Amended) An expandable medical device comprising:

a plurality of elongated beams, the plurality of elongated beams joined together to form a substantially cylindrical device which is expandable from a first diameter to a second diameter,

each beam defining a beam width in the circumferential direction of the cylindrical device; ~~and~~

a plurality of ductile hinges connecting the plurality of beams together in the substantially cylindrical device, each hinge defining a hinge width in the circumferential direction of the cylindrical device, wherein the hinge width is smaller than the beam width such that as the device is expanded from the first diameter to the second diameter the ductile hinges experience plastic deformation while the beams are not plastically deformed, the ductile hinges being asymmetrically configured to reach a predetermined strain level upon a first percentage of expansion from an initial dimension and to reach the predetermined strain level upon a second percentage of compression from said initial dimension, wherein the first percentage is larger than the second percentage;

wherein the ductile hinges have a first side surface placed in tension during compression of the device and a second side surface placed in tension during expansion of the device, wherein the first side surface is smaller than the second side surface; and

wherein a transition between the cross sectional area of the elongated beams orthogonal to the beam length and the cross sectional area of the ductile hinges orthogonal to the hinge length is an abrupt transition on both circumferential sides of the beams.

39. (**Cancelled**)

40. (Currently Amended) The expandable medical device according to Claim ~~39~~38, wherein the first side surface is an arcuate surface.

41. (Currently Amended) ~~The~~ An expandable medical device ~~according to Claim 39,~~ comprising:

a plurality of elongated beams, the plurality of elongated beams joined together to form a substantially cylindrical device which is expandable from a first diameter to a second diameter, each beam defining a beam width in the circumferential direction of the cylindrical device; and

a plurality of ductile hinges connecting the plurality of beams together in the substantially

cylindrical device, each hinge defining a hinge width in the circumferential direction of the cylindrical device, wherein the hinge width is smaller than the beam width such that as the device is expanded from the first diameter to the second diameter the ductile hinges experience plastic deformation while the beams are not plastically deformed, the ductile hinges being asymmetrically configured to reach a predetermined strain level upon a first percentage of expansion from an initial dimension and to reach the predetermined strain level upon a second percentage of compression from said initial dimension, wherein the first percentage is larger than the second percentage;

wherein the ductile hinges have a first side surface placed in tension during compression of the device and a second side surface placed in tension during expansion of the device, wherein the first side surface is smaller than the second side surface; and

wherein the second side surface is an arcuate surface.

42. (Previously Presented) The expandable medical device according to Claim 38, wherein the hinge width is smaller than the hinge thickness.

43. (Previously Presented) The expandable medical device according to Claim 38, wherein the hinge width is no greater than 60% of the hinge thickness.

44. (Previously Presented) The expandable medical device according to Claim 38, wherein the hinge width is at least 50% smaller than the beam width.

45. (Previously Presented) The expandable medical device according to Claim 38, wherein the device is expandable by a balloon catheter pressurized by an inflation pressure of 1 to 5 atmospheres.

46. (Previously Presented) The expandable medical device according to Claim 38, wherein the hinge width is less than 2/3 the beam width.

47. (Currently Amended) The expandable medical device according to Claim 38, wherein ~~a~~ said transition ~~between the cross-sectional area of the struts elongated beams orthogonal to the bean length and the cross-sectional area of the ductile hinges orthogonal to the hinge length is an abrupt transition which~~ extends less than 10 percent of a length of ~~a strut~~ the elongated beams.

48. (Currently Amended) The expandable medical device according to Claim 38, wherein a ratio of a length of the ductile hinges to a length of the ~~axial struts~~ elongated beams is 1:6 or less.

49. (Previously Presented) The expandable medical device according to Claim 38, wherein the elongated struts include a beneficial agent for delivery to a patient.

50. (Currently Amended) An expandable medical device comprising:

a plurality of elongated beams each defining a beam width in the circumferential direction of the cylindrical device, the plurality of elongated beams joined together to form a substantially cylindrical device which is expandable from a first diameter to a second diameter; and

a plurality of ductile hinges connecting the plurality of beams together in the substantially cylindrical device, each hinge defining a hinge width in the circumferential direction of the cylindrical device and having first and second side surfaces, wherein the hinge width is smaller than the beam width such that as the device is expanded from the first diameter to the second diameter the ductile hinges experience plastic deformation while the beams are not plastically deformed, the ductile hinges being asymmetrically configured with a first side surface placed in compression during expansion of the device and a second side surface placed in tension during expansion of the device, wherein the first side surface has a length smaller than a length of the second side surface;

wherein a transition between the cross sectional area of the elongated beams orthogonal to the beam length and the cross sectional area of the ductile hinges orthogonal to the hinge length is an abrupt transition on both circumferential sides of the beams.

51. (Currently Amended) The expandable medical device according to Claim 50, wherein the first side surface is a concave ~~accurate~~ arcuate surface.

52. (Previously Presented) ~~The~~ An expandable medical device ~~according to Claim 50,~~ comprising:

a plurality of elongated beams each defining a beam width in the circumferential direction of the cylindrical device, the plurality of elongated beams joined together to form a substantially cylindrical device which is expandable from a first diameter to a second diameter; and

a plurality of ductile hinges connecting the plurality of beams together in the substantially cylindrical device, each hinge defining a hinge width in the circumferential direction of the cylindrical device and having first and second side surfaces, wherein the hinge width is smaller than the beam width such that as the device is expanded from the first diameter to the second diameter the ductile hinges experience plastic deformation while the beams are not plastically deformed, the ductile hinges being asymmetrically configured with a first side surface placed in compression during expansion of the device and a second side surface placed in tension during expansion of the device, wherein the first side surface has a length smaller than a length of the second side surface;

wherein the second side surface is a convex ~~accurate~~ arcuate surface.

53. (Previously Presented) The expandable medical device according to Claim 50, wherein the hinge width is at least 50% smaller than the beam width.

54. (Previously Presented) The expandable medical device according to Claim 50,

wherein the hinge width is less than 2/3 the beam width.

55. (Currently Amended) The expandable medical device according to Claim 50, wherein ~~a~~ said transition ~~between the cross sectional area of the struts elongated beams orthogonal to the beam length and the cross sectional area of the ductile hinges orthogonal to the hinge length is an abrupt transition which~~ extends less than 10 percent of a length of ~~a strut~~ the elongated beams.

56. (Currently Amended) The expandable medical device according to Claim 50, wherein the elongated ~~struts~~ beams include a beneficial agent for delivery to a patient.

57. (Currently Amended) An expandable medical device comprising:

a cylindrical tube; and

a plurality of axial slots formed in the cylindrical tube in a staggered arrangement to define a network of elongated struts, the cylindrical tube being expandable or compressible from a first diameter to a second diameter;

a plurality of ductile hinges formed between the elongated struts, the ductile hinges allowing the cylindrical tube to be expanded or compressed from the first diameter to the second diameter by deformation of the ductile hinges, wherein the ductile hinges are asymmetrically configured to reach a predetermined strain level upon a first percentage of expansion from an initial dimension and to reach the predetermined strain level upon a second percentage of compression from said initial dimension, the first percentage being larger than the second percentage; and

a plurality of holes formed in the elongated struts for containing a beneficial agent;

wherein a transition between the cross sectional area of the struts orthogonal to the strut length and the cross sectional area of the ductile hinges orthogonal to the ductile hinge length is an abrupt transition on both circumferential sides of the struts.

58. (Previously Presented) The expandable medical device according to Claim 57, further comprising a beneficial agent disposed within the plurality of holes.

59. (Previously Presented) The expandable medical device according to Claim 58, wherein said beneficial agent is a drug.

60. (Previously Presented) The expandable medical device according to Claim 58, wherein said beneficial agent includes chemotherapy.

61. (Currently Amended) The expandable medical device according to Claim 57, wherein the ~~elongated struts~~ axial slots have a thickness of at least 0.002 inch.

62. (Previously Presented) The expandable medical device according to Claim 57, wherein the plurality of holes are laser drilled holes.

63. (New) The expandable medical device according to Claim 27, wherein the second arcuate surface is longer than the first arcuate surface, the curved beams of the hinges being positioned such that during expansion tensile strain is distributed along the second arcuate surface.